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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,792	04/14/2004	Ville Ruutu	59643.00430	4681

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EXAMINER	
EKONG, EMEM	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/823,792	RUUTU ET AL.	
	Examiner	Art Unit	
	EMEM EKONG	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/16/2007 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 6, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,282,427 B1 to Larsson (Larsson) et al.

Regarding claims 6 and 23, Larsson discloses a method and system comprising: triggering a location process (see figure 6, and col. 1 lines 6-18); obtaining selection information for selection of at least one measurement device, the selection information including information of measurement devices that have historically provided measurement information that satisfies a predefined criteria (col. 3 line 35-col. 4 line 20); selecting at least one measurement device (col. 4 lines 21-33); and locating user

equipment based on measurement information from the selected at least one measurement device (col. 4 lines 31-33).

4. Claims 20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,968,195 B2 to Nowak.

Regarding claim 20, Nowak discloses a user equipment for a mobile system, the user equipment comprising a processor (see fig. 3 processor 150, col. 2 lines 53-54, col. 15 line 44-col. 16 line 59) configured to process quality information associated with the quality of results of past location measurements by a plurality of measurement devices of a first type and to provide selection information (col. 16 lines 10-19, and col. 16 lines 63-67) for selection of which of said plurality of measurement devices of a first type to use for future location determinations based upon the quality information, Nowak further discloses the processor is further configured to self-learn based upon the quality information associated with the quality of results of past measurements (see figures 4-7, col. 3 lines 39-53, col. 4 lines 22-61, col. 5 lines 2-11, and col. 11 line 45-col. 14 line 62).

Regarding claim 21 Nowak discloses a computer program (see fig. 8) comprising program code means adapted to perform the following when the program is run on a computer: providing quality information of location measurements by a plurality of measurement devices of a first types (col. 15 line 44-col. 16 line 59); obtaining selection information for selection of at least one of said plurality of measurement devices of a first type to use for future location determinations based upon the quality information

(col. 16 lines 10-19, and col. 16 lines 63-67); and self-learn based upon the quality information associated with the quality of results of past measurements (see figures 4-7, col. 3 lines 39-53, col. 4 lines 22-61, col. 5 lines 2-11, and col. 11 line 45-col. 14 line 62).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 3-5, 7-19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,282,427 B1 to Larsson (Larsson) et al. in view of Nowak.

Regarding claims 1 and 22, Larsson discloses a method and a system (col. 1 lines 6-18, and col. 3 lines 20-26) comprising: providing quality information associated with location determination by at least two measurement devices (col. 3 line 35-col. 4 line 10, and col. 8 liens 32-64); storing said quality information and identity information associated with the at least two measurement devices (col. 4 lines 16-19); and providing selection information for selection of measurement devices for future location determinations, based upon the stored quality and identity information (col. 2 lines 15-29, col. 4 lines 19-42, and col. 5 lines 5-65 inherently, selection of measurement device is for future location determination).

However, Larsson fails to specifically disclose past measurements, and wherein the providing selection information comprises self-learning based upon historical quality information associate with the measurement devices.

Nowak discloses past measurements, and wherein the providing selection information comprises self-learning based upon historical quality information associate with the measurement devices (see figures 4-7, col. 3 lines 39-53, col. 4 lines 22-61, col. 5 lines 2-11, and col. 11 line 45-col. 14 line 62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Larsson, and have past measurements, and wherein the providing selection information comprises self-learning based upon historical quality information associate with the measurement devices as disclosed by Nowak for the purpose for the purpose of selecting best measurement device for location determination.

Regarding claim 3, the combination of Larsson and Nowak discloses the method of claim 1, wherein the step of providing selection information comprises ranking possible measurement devices based upon historical quality information associated with measurement devices (Larsson col. 4 lines 19-33, and col. 4 lines 55-58).

Regarding claim 4, the combination of Larsson and Nowak discloses the method of claim 3, comprising the further step of selecting proper measurement devices based on the ranking (Larsson col. 4 lines 19-33, and col. 4 lines 55-58).

Regarding claim 5, the combination of Larsson and Nowak discloses the method of claim 1, comprising storing information identifying at least one cell of a mobile system (Larsson col. 4 lines 16-19).

Regarding claims 7 and 24, Larsson discloses a method and system comprising: storing historical data of various measurements in a mobile system (col. 4 lines 16-19);

selecting at least one measurement device based upon the historical data (col. 3 lines 35-col. 4 lines 42, and col. 8 lines 32-66). However, Larsson fails to specifically disclose self-learning based upon selected historical data associated with measurement devices.

Nowak discloses self-learning based upon selected historical data associated with measurement devices (see figures 4-7, col. 3 lines 39-53, col. 4 lines 22-61, col. 5 lines 2-11, and col. 11 line 45-col. 14 line 62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Larsson by self-learning based upon selected historical data associated with measurement devices as disclosed by Nowak for the purpose for the purpose of selecting best measurement device for location determination.

Regarding claim 8, Larsson discloses the method of claim 7, however, Larsson fails to disclose wherein the self-learning comprises maintaining a self-learning table wherein look-up parameters are matched with information regarding the success of measurements by measurement devices obtained after a location attempt. Nowak discloses a table representation of parameters that are matched with information regarding the success of measurements by measurement devices obtained after a location attempt (see figures 4-7, col. 4 lines 22-61, and col. 11 line 45-col. 14 line 62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Larsson, and have the self-learning comprises maintaining a self-learning table wherein look-up parameters are matched

with information regarding the success of measurements by measurement devices obtained after a location attempt for the purpose of selecting best signal from measurement unit.

Regarding claims 9-11 and 15, Larsson discloses the method of claim 8, however, Larsson fails to disclose wherein the maintaining a self-learning table comprises maintaining statistical historical information about which measurement devices were able to receive transmissions from the mobile user equipment when at least one look-up parameter was observed, and wherein the selection controller is provided in a user equipment.

Nowak discloses wherein the step of maintaining creation a self-learning table comprises maintaining statistical historical information about which measurement devices were able to receive transmissions from the mobile user equipment when at least one look-up parameter was observed; matching cell identity and timing advance parameters; comprising matching look-up parameters with information regarding the success of measurements by location measurement units obtained after an uplink time difference of arrival location attempt (see figures 4-7, and col. 11 line 45-col. 14 line 62), and wherein the selection controller is provided in a user equipment (col. 2 lines 32-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Larsson, and have the step of self-learning comprises maintaining a self-learning table wherein look-up parameters are matched with information regarding the success of measurements by measurement

devices obtained after a location attempt and wherein the selection controller is provided in a user equipment for the purpose of selecting best signal from measurement unit.

Regarding claim 12, Larsson discloses a location system for locating a mobile user equipment, comprising: at least two measurement devices configured to provide measurement data for location determination (col. 1 lines 6-18, col. 2 lines 15-28, and col. 3 lines 20-26); a quality controller configured to provide quality information measurements by the at least two measurement devices (see figure 7, and col. 4 lines 43-58, i.e. distance determiner, and location center determiner); a storage configured to store quality information of measurements by the at least two measurement devices (col. 4 lines 16-19); and a selection controller (selector) configured to provide selection information for selection of measurement devices for future location determinations based upon quality information that is stored in the storage (see figure 7, and col. 4 lines 43-58, col. 5 lines 5-65, inherently, the need for measurement device selection is for future location determination).

However, Larsson fails to specifically disclose wherein the location system is configured to self-learn based upon the quality information regarding the quality of results of past measurements by the at least two measurement devices. Nowak discloses the location system is configured to self-learn based upon the quality information regarding the quality of results of past measurements by the at least two

measurement devices (see figures 4-7, col. 3 lines 39-53, col. 4 lines 22-61, col. 5 lines 2-11, and col. 11 line 45-col. 14 line 62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Larsson, and have the location system be configured to self-learn based upon the quality information regarding the quality of results of past measurements by the at least two measurement devices as disclosed by Nowak for the purpose for the purpose of selecting best measurement device for location determination.

Regarding claim 13, the combination of Larsson and Nowak discloses the location system of claim 12, wherein the quality controller, the storage and the selection controller are provided in a location service element of a mobile system (Larsson, see figure 7).

Regarding claim 14, the combination of Larsson and Nowak discloses the location system of claim 12, comprising a location service element configured to select at least one measurement device based upon selection information, the selection information including information of measurement devices that have historically provided measurement information that satisfies a predefined criteria, and to locate a user equipment based on measurement information from selected at least one measurement device (Larsson col. 3 lines 35-col. 4 lines 42).

Regarding claim 16, Larsson discloses a network element for a mobile system, the network element comprising a processor configured to process quality information associated with the quality of location measurements by a plurality of measurement devices and to provide selection information for selection of at least one measurement device for the future location determinations based upon the quality information (see figure 7, and col. 4 lines 43-58, i.e. distance determiner, and location center determiner). However, Larsson fails to specifically disclose wherein the processor is further configured to self-learn based upon the quality information associated with the quality of results of past location measurements. Nowak discloses the processor configured to self-learn based upon the quality information associated with the quality of results of past location measurements (see figures 4-7, col. 2 lines 52-53, col. 3 lines 39-53, col. 4 lines 22-61, col. 5 lines 2-11, and col. 11 line 45-col. 14 line 62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Larsson, and have the processor configured to self-learn based upon the quality information associated with the quality of results of past location measurements as disclosed by Nowak for the purpose for the purpose of selecting best measurement device for location determination.

Regarding claim 17, the combination of Larsson and Nowak discloses the network element of claim 16, wherein the processor is configured to provide deciding means for deciding which location measurement units can be used to locate a particular

mobile user equipment (Larsson, see figure 7, and col. 4 lines 43-58, i.e. distance determiner).

Regarding claim 18, the combination of Larsson and Nowak discloses the network element of claim 16, comprising a serving mobile location center (Larsson, i.e. mobile location center, base station controller, col. 3 lines 1-13).

Regarding claim 19, the combination of Larsson and Nowak discloses the network element of claim 16, comprising a separate network element connected to a serving mobile location center (Larsson, see figure 1, i.e. external application).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMEM EKONG whose telephone number is 571 272 8129. The examiner can normally be reached on 8-5 Mon-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571 272 7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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06/08/2007

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